

CLAIMS

1. A molded retail display form made of an elastomeric material having a pigment or dye mixed therein, said form having a uniform color throughout the thickness of said material.
2. The form of claim 1 made by a process of cold rotational molding at a temperature not exceeding about 200°F.
3. The form of claim 2 made of thermosetting polyurethane elastomer.
4. The form of claim 2 made by a process having a demold time of no more than about 12 minutes.
5. The form of claim 2 having a substantially uniform texture throughout.
6. The form of claim 2 made using an elastomeric material having a gel profile which is substantially flat for the first half of the gelling period, begins to rise thereafter, and rises steeply during the last quarter of the gelling period.
7. The form of claim 2 made using a pigment or dye having a mho hardness less than about 6.5.
8. The form of claim 2 made using an organic pigment or dye.
9. The form of claim 2 made with a polymer mix having a viscosity of between about 500 and about 4000 cp as it enters the mold.

10. The form of claim 9 wherein the polymer mix is made with an isocyanate component having a viscosity of between about 400 and 1000 cp.
11. The form of claim 9 wherein the polymer mix is made with a resin component having a viscosity of between about 1000 and about 4000 cp.
12. The form of claim 1 having an abrasion characteristic such that flash can be sanded effectively with 100-grit sandpaper.
13. The form of claim 1 having an Izod Impact score as measured by ASTM D 256-97 (Method A) exceeding about 2 ft. lb./inch.
14. The form of claim 1 having the property of deformation resistance at temperatures of at least about 140°F.
15. The form of claim 1 which is resistant to denting and exhibits resilience when deformed flexurally by 5% of the material thickness at 110°F as measured by ASTM D 790-99.
- Sub a³* 16. The form of claim ~~1~~ which is resistant to denting at 110°F and has a flexural stress value of at least about 800 psi at deletion 5% of its thickness as measured by ASTM D 790-99.
17. The form of claim 1 which is resistant to denting and has a flexural modulus between about 50,000 and about 100,000 psi at room temperature as measured by ASTM D 790-99.
- Sub a⁴* 18. The form of claim ~~1~~ which is resistant to denting and has a flexural modulus at 100°F between about 20,000 and ~~60,000~~ as measured by ASTM D 790-99.

19. The form of claim 1 which has a linear burn rate of no more than about 25.
20. The form of claim 1 which is resistant to heat cycling and has less than about 0.5% dimensional change after cycling between freezing and about 120°F every twelve hours for 21 days.
21. The form of claim 1 which is resistant to prolonged high temperatures and has less than about 0.5% dimensional change after being held at a temperature of about 120°F for 21 days.
22. The form of claim 1 which has a total difference (DE) on the CIE L*a*b* scale of less than about 12 over a period of one year under show window conditions.
23. The form of claim 1 without foam backing inside.
24. The form of claim 1 having a uniform matte finish on its outer surface.
25. The form of claim 1 wherein said uniform color is selected from the group consisting of white, tan, skin color, grey, red, blue, yellow, metallic colors, and mixtures of any two or more of the foregoing.
26. The form of claim 1 wherein said uniform color is white
27. The form of claim 1 wherein said uniform color is skin color.
28. The form of claim 1 wherein said uniform color is tan.
- ~~29.~~ A molded display form made of polyurethane having a pigment or dye mixed therein, said form having a uniform color throughout the thickness of said material, and being made by a cold rotational molding process, using a pigment

or dye having a mho hardness less than about 6.5, an Izod impact score of at least about 2 ft. lb./inch and a resilience at 5% of its thickness when flexurally deflected as measured by ASTM D 790-99.

264 30. A method for making a molded display form of an elastomeric composition, said method comprising:

- a. providing a pigment or dye effective to produce a desired color in said form;
- b. providing polyol or polyester resin components;
- c. providing isocyanate components;
- d. providing a curing catalyst;
- e. mixing said pigment or dye, resin and isocyanate components, and said curing catalyst;
- f. putting said mixture into a mold;
- g. rocking or rotating the mold in multiple directions;
- h. allowing said mixture to remain within said mold for a gelling period of about 9 to about 15 minutes to produce a molded form;
- i. removing said molded form from said mold.

31. The method of claim 30 wherein the gel profile is substantially flat for the first half of the gelling period, begins to rise thereafter, and rises steeply during the last quarter of the gelling period.
32. The method of claim 30 wherein said mold is made of a non-metallic material.
33. The method of claim 30 wherein said mold is made of fiber-reinforced epoxy resin.
34. The method of claim 30 wherein said mold is preheated to a temperature of at least about 120°F prior to putting said mixture therein.
35. The method of claim 30 wherein said pigment or dye is mixed into said polyol or polyester component prior to mixing in said isocyanate components;
36. The method of claim 35 wherein said pigment or dye and polyol or polyester mixture is mixed with said isocyanate components via impingement mixing.
37. The method of claim 30 wherein an ultraviolet stabilizer is also added to said mixture.
38. The method of claim 30 wherein a drying agent is also added to said mixture.
39. The method of claim 30 wherein an antifoaming agent is also added to said mixture.
40. The method of claim 30 wherein a catalyst is added to said mixture in an amount no more than about 0.2% of the resin component.

41. The method of claim 30 wherein said mixture has a viscosity between about 500 and about 4000 cp at the time of being put into the mold.
42. The method of claim 41 wherein a seam line formed or other unwanted protuberance on said molded form is removed by abrasion.
43. The method of claim 42 wherein the surface of said form has been buffed to a uniform matte finish.

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44. A method for making a molded article selected from the group consisting of urns, frames, furniture, fixtures, display props and garden furniture. of an elastomeric composition, said method comprising:

- a. providing a pigment or dye effective to produce a desired color in said article;
- b. providing polyol or polyester resin components;
- c. providing isocyanate components;
- d. providing a curing catalyst;
- e. mixing said pigment or dye, resin and isocyanate components, and said curing catalyst;
- f. putting said mixture into a mold;
- g. rocking or rotating the mold in multiple directions;

cont.
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h. allowing said mixture to remain within said mold for a gelling period of about 9 to about 15 minutes to produce a molded article;

rule 1.26 ⁱ

removing said molded article from said mold.

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45. A molded article made by the method of claim 44.

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